

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY  
LETTERS PATENT OF THE UNITED STATES IS:

1. A method for operating a flue gas purification plant (10) with at least one absorber chamber (11), in which CO and NO are simultaneously oxidized by means of a catalyst in a first absorber (15) according to the SCONOx principle and the resulting NO<sub>2</sub> is absorbed on the catalyst surface, and in which SO<sub>2</sub> is furthermore oxidized by means of a catalyst in a second absorber (14) upstream of the first absorber (15) according to the SCOSOx principle and the resulting SO<sub>3</sub> is absorbed on the catalyst surface, in which method the absorber chamber (11) is disconnected from the flue gas stream in regularly repeating regeneration cycles and regenerated by means of a regeneration gas containing hydrogen and/or hydrogen compounds, the two absorbers (14, 15) of the absorber chamber (11) being regenerated in succession and regeneration gas being injected into the absorber chamber between the two absorbers (14, 15), characterized in that the section of the absorber chamber (11) with the absorber to be regenerated later is first purged with a purge gas before the start of the regeneration of the absorber which is regenerated first.
2. The method as claimed in claim 1, characterized in that the regeneration gas is used as the purge gas.
3. The method as claimed in one of claims 1 and 2, characterized in that the SCOSOx absorber (14) is regenerated first and the SCONOx absorber (15) is regenerated afterward.
4. The method as claimed in one of claims 1 to 3, characterized in that the purging is carried out over a time period of several seconds, in particular between 15 and 30 seconds.
5. The method as claimed in one of claims 1 to 4, characterized in that the absorber chamber (11) is

disconnected from the flue gas stream by means of closable dampers (12, 13) at the input and output of the absorber chamber (11), in that the purging is controlled by inlet and outlet valves (16, 17, 19, 29),  
5 and in that the inlet and outlet valves (16, 17, 19, 29) have already been brought into the position necessary for the purging when the dampers (12, 13) are closed.